# PROTECT YOUR SKIN ALL YEAR

## FIND THE SUN SAFE ACTIONS IN EACH SEASON!


Protect eyes


Protect face

Wear sunscreen

Avoid intense sun


Cover skin



Neutrogena SKINU


**SUN SAFETY FOR ALL**

YMI YOUNG MINDS INSPIRED

SUN SAFETY FOR ALL

# PROTECT YOUR SKIN FROM THE SUN ALL YEAR

**DEAR EDUCATORS AND SCHOOL NURSES,**

No matter the weather, the season, or your skin tone, it's always important to be sun safe! Help your students soak up sun protection knowledge (instead of harmful UV rays) with this free educational program from Neutrogena® SkinU and the curriculum specialists at Young Minds Inspired. The activities support health, STEM, and ELA lessons.

We hope that you will use the program and **share** it with other teachers at your school. And please **tell us what you think** of the materials by:

- Completing and returning the enclosed **reply card**.
- Commenting at **ymiclassroom.com/feedback-suncare**.

We look forward to hearing from you.

Sincerely,

Dominic Kinsley, PhD
Editor in Chief
Young Minds Inspired

## ABOUT THE PROGRAM

### TARGET AUDIENCE

Grades 3-5 and 6-8

### PROGRAM COMPONENTS

- This teaching guide
- Two reproducible student activity sheets for each grade group
- A classroom poster
- A reply card

Available at **ymiclassroom.com/suncare**:

- A reproducible family take-home letter (English and Spanish)
- A standards chart
- An online feedback form

### CONCEPTS AND SKILLS

| | |
|---|---|
| • Sun health and safety<br>• Electromagnetic radiation and waves<br>• Energy<br>• Weather<br>• Cause/effect | • Reading informational text<br>• Critical thinking<br>• Interpreting and analyzing real world data<br>• Making healthy choices |

### HOW TO USE THIS PROGRAM

1. Photocopy the activity sheets for students and display the poster in your classroom.
2. Download and send home copies of the family letter.
3. Review the EPA's UV Index website (**enviro.epa.gov/envirofacts/uv/search**) prior to introducing it to students for Activity 1.
4. Know your school's policy on students having their own sunscreen in school.

### WHY TEACH SUN SAFETY

Skin cancer is the most common cancer in the U.S., but it is preventable. Skin cancer is caused by UV light, which damages our DNA when it hits our skin. When the damage becomes too great, changes (mutations) develop in our skin cells which can develop into skin cancer. In fact, **just one blistering sunburn at a young age can double the chance of developing melanoma — the deadliest form of skin cancer — later in life.** That's why it is important to educate students about sun safety and help protect them from harmful UV rays.

### GETTING STARTED

Set the stage for the activities by asking students the following:

- *What are some things we do to protect ourselves?* (Wear helmets, seat belts, life jackets, etc.)
- *Why should we all follow these practices?* (We all have to protect our bodies so that they can work properly; to prevent sickness)
- *What are some things we can do to protect our skin?* (Wear sunscreen, take care of cuts and scratches)
- *Why should we all protect our skin?* (Explain that skin is the body's largest organ. It protects our bodies, so we all need to take care of our skin so it can do its job.)

Ask students to share what they know about the sun. Next, explain that the sun emits energy including infrared radiation (heat), visible light, and ultraviolet light. All these kinds of energy travel in waves as parts of the electromagnetic spectrum. Electromagnetic waves are invisible except for the small portion of the spectrum we call visible light. But even the invisible parts of sunlight are powerful, and one part, ultraviolet (UV) light, can be very harmful. UV light rays can pass through Earth's protective atmosphere and damage our skin and eyes.


Protect eyes


Protect face

Wear sunscreen

Avoid intense sun


Cover skin



Questions? Contact YMI toll-free at 1-800-859-8005 or by email at feedback@ymiclassroom.com.

Neutrogena SKINU

# EDUCATOR'S GUIDE

## GRADES 3 – 5

### ACTIVITY 1: SUN SAVVY

**Part 1:** Pass out the activity sheet and go over the instructions. Discuss the answers as a class. ***Answers:*** **Helpful:** makes plants grow, captured as solar energy to power homes, provides light. **Harmful:** can damage skin and eyes

**Part 2:** Demonstrate how to find the EPA's UV Index for your school's zip code at **enviro.epa.gov/envirofacts/uv/search**. Explain that the numbers 1 to 11+ provide information about how strong the sun's harmful UV radiation will be on that day. For each number, there's a recommended sun protection message to help keep us safe. Have students use this information to complete Part 2. Then have students keep a daily record of the UV Index over the course of one week. Help them make connections between the weather and the UV Index ratings. Point out that even when it is not sunny, the Index shows that UV rays are still present.

### ACTIVITY 2: SUN SAFETY SMARTS

Introduce the poster and ask students to identify sun safe practices in the illustrations that can help protect our skin and eyes from UV rays. Emphasize that "all year," means we need to protect ourselves from the sun's rays every day.

**Part 1:** Distribute the activity sheet and review the sidebar and directions for the logic puzzle with students. ***Answers:*** Leo = walking to get ice cream; Kai = building a snowman; Aria = hiking and picnicking; Layla = reading a book outdoors

**Part 2:** Have students underline actions the children took to help protect themselves from the sun's harmful UV rays, using the Sun Safety Tips to help them.

**Poster Activity:** To reinforce the safety messages, revisit the poster and have students look for the sun safe practices listed on the sheet in the poster scenes.

**Extension Activity:** Have students create their own mini posters that illustrate steps they can take to protect themselves from the sun during outdoor activities they especially enjoy. Display the students' work in the classroom or school hallways.

## GRADES 6 – 8

### ACTIVITY 1: THE SUN: LIGHTS, WAVES, AND RAYS

**Part 1:** Distribute the activity sheet and have students read the passage. Then have them participate in a "Turn and Talk" with a neighbor, sharing one new fact they learned from the passage. Ask students to identify the helpful and harmful effects of the sun as described in the reading, and create examples of cause and effect.

To augment the reading, visit NASA's *Introduction to the Electromagnetic Spectrum* at **science.nasa.gov/ems/01_intro** for a helpful video to screen for your class, along with more information on the topic for students to explore.

**Part 2:** Demonstrate how to find the EPA's UV Index for your school's zip code at **enviro.epa.gov/envirofacts/uv/search** using your smartboard or projector. Review the information to ensure that students associate the Index ratings with the corresponding protection messages.

Have students visit the National Weather Service website at **weather.gov** to track and record atmospheric conditions alongside the Index figures. Assign students to visit these websites daily throughout the week to report the UV Index and atmospheric conditions and have all students record the data on the table. Remind them to review the recommended actions in the sun protection messages each day, as this is an important element of the rating.

At the end of the week, discuss the data as a class. Ask students for additional questions that they might use to structure the summaries they are to write. For example: *What are we attempting to measure/monitor? What did the data say? What variables are measured?* Students should understand that even when it is cloudy, there is still UV ray exposure. Note: If you don't experience variations in weather during the week, check back when the weather does change to compare the UV index.

**Extension Activity:** Have students collect UV Index data on 4 or 5 geographically diverse regions or cities in the U.S. that they might like to visit in order to determine how they would plan for sun safety in these locations. Then have students write a summary based on their comparisons.

### ACTIVITY 2: LOVE YOUR SKIN

**Part 1:** Distribute the activity sheet and have students research how UV rays are impacted by each factor.

***Answers:*** The strength of UV rays depends on environmental and geographic factors. UV rays are strongest when they have less distance to travel. **The four seasons:** UV rays are strongest in the spring and summer when the sun is at a higher angle. **Elevation:** UV rays are stronger at higher elevations because they have less distance to travel. **Sun reflections:** UV rays reflect off sand, water, and snow, bouncing back up at us. **Time of day:** UV rays are strongest midday when the sun is directly overhead.

**Part 2:** Students will assess scenarios and provide sun safe tips for each one. Once done, review the answers as a class. Emphasize the importance of wearing broad spectrum (UVA + UVB protection) sunscreen of at least SPF 30 and protecting ourselves from the sun's UV rays all year.

***Answers:*** Answers will vary. They should all include applying and reapplying sunscreen at least every two hours. After swimming or sweating you may need to apply more frequently. Other protective factors: wearing sunglasses, hats with visors, long sleeves, long pants, and seeking shade when appropriate, remembering that the sun's rays are strongest between 10:00 a.m. and 2:00 p.m. If your shadow is shorter than you are, seek shade. The same sun safety precautions apply on a cloudy day.

**Poster Activity:** Using the list on this activity sheet, challenge students to find each of the sun safe practices on the poster.

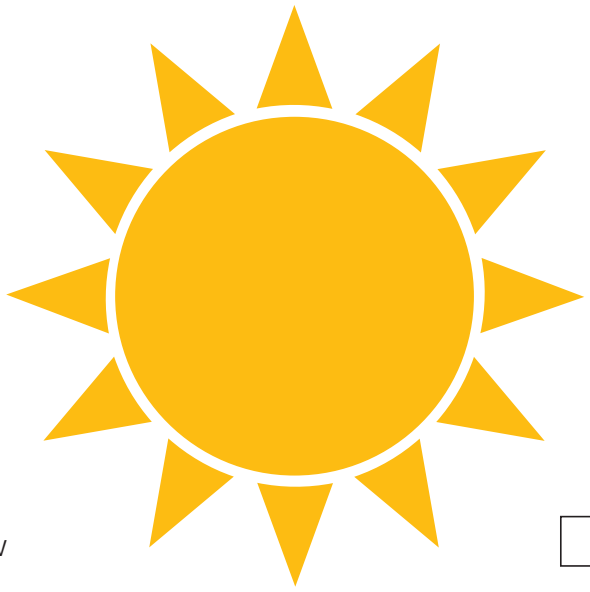
**Extension Activity:** Have students work together to create awareness messages or Public Service Announcements (PSAs) to encourage people to practice safe, smart sun care habits. You might assign a medium that you prefer, or let students choose to produce their project as a poster, audio message, slide show, or short video.

# SUN SAVVY

SUN SAFETY FOR ALL

The sun, which is a star, produces energy that brings heat and light necessary to life on Earth. But the sun can also be harmful. What does this picture tell you about the sun's helpful and harmful energy?

## OUR SUN PRODUCES ENERGY THAT:



☐ powers homes

☐ provides light

☐ makes plants grow

☐ can damage skin and eyes

**PART 1** Look at the phrases and images above. Put a checkmark (✓) next to items that show how the sun's energy is helpful. Put an X next to items that show the potential harmful effects of the sun's energy.

**PART 2** Some of the sun's energy enters Earth's atmosphere as harmful, invisible ultraviolet (UV) rays. UV rays can cause sunburn and harm our eyes. The UV Index is a system that tracks UV rays. It uses a scale of 1 to 11+ to predict how strong the UV rays will be each day and how we can help protect ourselves from them. It is a great tool to help us practice sun safety. Follow your teacher's directions to learn more about the UV Index.

Today's UV Index for our area: _____

What this means (the sun protection message): _____

_____

_____

### DID YOU KNOW?

The sun's UV rays are strongest in the spring and summer, but they are present all year in all weather, even when it's cloudy. UV rays also bounce off reflective surfaces like sand, water, snow, and pavement. This is why we need sun safety all year!

# SUN SAFETY SMARTS

SUN SAFETY FOR ALL

To protect ourselves from the sun, it's important to wear broad spectrum sunscreen of at least SPF 30. What does that mean?

- *Broad spectrum* sunscreen protects us from ultraviolet A (UVA) rays, which age the skin, and ultraviolet B (UVB) rays, which burn the skin. Both are harmful to our skin and eyes.
- *SPF* stands for Sun Protection Factor, which measures how well the sunscreen can protect us from sunburn.
- The SPF *number* tells how much UVB light the sunscreen can block from our skin. It is based on how much longer it takes skin to start to burn with sunscreen compared to without sunscreen. It is **not** related to how much time you can spend in the sun. The SPF number should be 30 or higher.

Sunscreen can't protect us 100% from the sun's UV rays. That's why we all need to know about some other ways to help protect our skin.

## PART 1

Read the information on the chart and the clues below. Match each kid to their activity. When you make a match, put a checkmark (✓) in the box where the child's name and activity meet. Then put an X in the other boxes in the row and column since each child is doing a different activity.

All the kids are wearing broad spectrum sunscreen of at least SPF 30. As you read the clues, pay attention to what else they do to help protect themselves from the sun's harmful UV rays.

| Name/Activity | Leo | Kai | Aria | Layla |
|---|---|---|---|---|
| Building a snowman | | | | |
| Reading a book outdoors | | | | |
| Walking to get ice cream | | | | |
| Hiking and picnicking | | | | |

### Clues

- Layla has on sunscreen and a hat. It is a hot sunny day. She is looking for a big shady tree to sit under and dive into her latest library find.
- Kai is wearing sunscreen, ski goggles, and gloves to protect his skin and eyes. He and his sister love the cold and are geared up for their outdoor activity.
- Aria puts on sunglasses to protect her eyes. Sunscreen, sweatshirt, boots, lunch — check! She is ready for a fun, fall adventure.
- Leo changes into a long sleeve t-shirt and a baseball hat and puts sunscreen on his exposed skin. It's 3:30 and time for the family excursion and treat he has been waiting for all afternoon.

## PART 2

What sun safety practices did the kids follow? Underline them in the clues above.

## SUN SAFETY TIPS!

Use these tips to help protect your skin and eyes!


**1.** Wear a sunscreen that is broad spectrum (UVA + UVB protection) and at least SPF 30 or more – even on cloudy days. Reapply sunscreen every two hours, and after swimming or sweating.

**2.** Seek shade between 10:00 a.m. and 2:00 p.m. when the sun's rays are strongest. Hint: If your shadow is shorter than you are, seek shade.

**3.** Wear clothing to cover your skin like long sleeves and long pants and accessories like sunglasses and a wide-brimmed hat.

**4.** Check the UV Index with a grown-up.

**5.** Follow these tips around sand, snow, and water, too. They reflect the sun's rays.

# THE SUN: LIGHTS, WAVES, AND RAYS

SUN SAFETY FOR ALL

## PART 1

Read the passage below and then identify at least one new fact that you learn.

*In the sun's core, nuclear fusion creates heat and light energy that moves from the sun's core to the surface where it spreads through space as **radiation**. This energy is important to life on Earth. It is the energy that enables us to grow food, which provides energy for our bodies. It is also the energy, converted to electricity, that we use to power everything from cars to digital devices. Plus, the sun's energy provides light.*

*The sun's energy consists of different kinds of radiation that form what we call the **electromagnetic spectrum**. Each kind of radiation on this spectrum has a different wavelength, from low frequency waves like radio waves to high frequency waves like X-rays. Low frequency waves are mostly harmless to humans, but high frequency waves can be harmful. Luckily for us, Earth's atmosphere blocks most high frequency waves, but the atmosphere does not block certain **ultraviolet (UV) rays**, which can cause harm.*

*Two types of harmful UV rays reach Earth — **UVA rays** (called aging rays) and **UVB rays** (called burning rays). Both types cause skin damage. In fact, just one blistering sunburn in childhood or adolescence can more than double the chance of developing melanoma, a serious skin cancer, later in life. And it's not just people with lighter skin that face this risk. Whatever your skin tone, UV rays can cause skin damage.*

*To help protect ourselves from harmful UV rays, it's important to practice **sun safety** like wearing sunscreen that is broad spectrum (UVA + UVB protection) and at least SPF 30, sunglasses, hats, and protective clothing, and limiting our time in the sun all year and in all weather, not just on sunny days.*

One new fact I learned: _____

_____

## PART 2

The UV Index tracks the ultraviolet ray level of the sun. It uses a scale of 1 to 11+ to predict how strong the UV rays will be each day and is a great tool for being sun smart. Visit **enviro.epa.gov/envirofacts/uv/search** to find the UV Index for your zip code and record it in the chart below every day for a week, along with the Sun Protection Message for each day. Then use the National Weather Service at **weather.gov** to record data on atmospheric conditions and temperate for each day.

At the end of the week, analyze your data to look for trends and patterns. Then write a summary. For example, do atmospheric conditions always align with index figures? Why or why not? If there is cloud coverage, how much UV exposure is still present?

| **Sun Safety Factor/Date** | | | | | |
|---|---|---|---|---|---|
| • UV Index | | | | | |
| • Index Sun Protection Message | | | | | |
| • Atmospheric conditions | | | | | |
| • High Temperature (C/F) | | | | | |
| • Low Temperature (C/F) | | | | | |

# LOVE YOUR SKIN

SUN SAFETY FOR ALL

## PART 1

Knowing that UV rays from the sun can damage skin and eyes, how do you protect yourself? You can't see or feel UV rays like you feel the heat from the sun on your skin, but they are there. On hot summer days and cold winter days, even on overcast or cloudy days — UV rays are there in all weather, all year, and affect everyone.

Research each topic below to determine how each sun exposure condition affects UV rays and their impact on our skin and eyes.

1. **The four seasons:** *When are UV rays the strongest? Why?*

_____

_____

2. **Elevation:** *Does altitude play a role in the strength of UV rays? Why or why not?*

_____

_____

3. **Sun reflection** on sand, water, snow: *What is the connection between reflections and UV rays?*

_____

_____

4. **Time of day:** *When are UV rays the strongest?*

_____

_____

## PART 2

Read each scenario below. Using the information you researched for Part 1 and the list of sun safety actions in the sidebar, provide tips to help each person be sun smart as they prepare for their activity. Write your answers on the back of this sheet.

1. It's a breezy spring day, and Asher is getting ready to fly a kite.
2. It's a crisp, bright fall morning and it's harvest time. Gianna is helping her grandparents gather the vegetables.
3. It's a cloudy summer day. Mateo's older sister is home from college and is taking him to the rec center to swim for the afternoon.
4. Eva and her brother are heading outside after lunch to build a snowman — their town in the mountains got 10 inches of snow overnight.

## SUN SAFETY TIPS!

Use these tips to help protect your skin and eyes!


**1.** Wear a sunscreen that is broad spectrum (UVA + UVB protection) and at least SPF 30 or more – even on cloudy days. Reapply sunscreen every two hours, and after swimming or sweating.


**2.** Seek shade between 10:00 a.m. and 2:00 p.m. when the sun's rays are strongest. Hint: If your shadow is shorter than you are, seek shade.

**3.** Wear clothing to cover your skin like long sleeves and long pants and accessories like sunglasses and a wide-brimmed hat.

**4.** Check the UV Index with a grown-up.

**5.** Follow these tips around sand, snow, and water, too. They reflect the sun's rays.

REPRODUCIBLE FAMILY LETTER

# PROTECT YOUR SKIN FROM THE SUN ALL YEAR

**SUN SAFETY FOR ALL**

## Dear Parents and Caregivers,

In class, your child has been learning about the importance of sun safety through a classroom program from Neutrogena® SKIN U and the curriculum specialists at Young Minds Inspired. The students have explored the science of UV rays and learned healthy habits that *everyone* should practice *all year* to help prevent damage from these harmful rays. Continue the conversation at home to develop sun safety habits to help keep everyone in your family protected.

## THE BURNING FACTS

As you focus on sun safety and skin health at home, keep these facts in mind:

- UV rays from the sun can cause skin cancer, which is the most common cancer in the U.S.
- Skin cancer occurs in people with all skin tones and can develop anywhere on the skin.
- The higher the exposure to UV rays, the greater the risk of skin cancer.
- Just one blistering sunburn in childhood or adolescence can double the chance of developing melanoma — the deadliest form of skin cancer — later in life.
- Tanning beds and lights also create harmful UV rays. Tanning bed use before age 35 increases the risk of melanoma by 75%.
- Research suggests that regular daily use of a broad spectrum sunscreen of at least SPF 30 can reduce the risk of skin cancer by 40%.

## BE A SUN-SAFE FAMILY!

UV rays are strongest in the spring and summer, but they are present all year in all weather, even when it's cloudy. Follow these simple guidelines to protect your family from sunburn and skin cancer risks.

- **Wear sunscreen** that is broad spectrum (UVA + UVB protection) and at least SPF 30 or more — even on cloudy days or in the car. (50% of UV rays can pass through car windows.) **Reapply** at least every 2 hours and after swimming or sweating. **Cover lips** with lip balm of at least SPF 30.
- **Seek shade between the hours of 10:00 a.m. and 2:00 p.m.** when the sun's rays are the most damaging. These are the hours when your shadow is at its shortest.
- **Cover up to limit sun exposure and protect yourself from UV ray damage. Wear sunglasses** and a **wide-brimmed hat or cap.** Also wear **long sleeves and pants** for additional protection when possible. Choose clothing with a **UPF** (ultraviolet protection factor) rating if available.
- **Follow sun safety practices around sand, snow, and water, too.** These surfaces reflect the sun's rays and cause added skin exposure to damaging rays.
- Familiarize yourself with your child's school's policy on sunscreen and apply sunscreen to your child before they head off to school if needed.

Your child is always learning from you, so be a sun-safe role model to help keep your family safe.


Protect eyes


Protect face

Wear sunscreen

Avoid intense sun


Cover skin